

Virginia Title V Operating Permit

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Atlantic Waste Disposal, Inc.
Facility Name:	Atlantic Waste Disposal Landfill
Facility Location:	3474 Atlantic Lane Waverly, Virginia

Registration Number:	51278
Permit Number:	PRO51278

Effective Date: January 1, 2004
Expiration Date: December 31, 2008

(for)
Robert G. Burnley
Director, Department of Environmental Quality

Signature Date: September 9, 2005

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I. Facility Information

Permittee

Atlantic Waste Disposal, Inc.
3474 Atlantic Lane
Waverly, VA 23890

Responsible Official

Lee Wilson
Director of Landfill Operations

Facility

Atlantic Waste Disposal Landfill
3474 Atlantic Lane
Waverly, VA 23890

Contact Person

Michael P. Kearns
District Manager
(804) 834-8300

County-Plant Identification Number: 183-0036

Facility Description: NAICS 4953 – the municipal solid waste landfill is owned by Sussex County and operated by Atlantic Waste Disposal, Inc. (AWDI). The landfill is 1,315 acres

The landfill opened in June 1994 and is capable of receiving waste by rail or road. The site was permitted to use an active collection system in March 2001. The collected landfill gas is controlled using open flares or is processed through a gas treatment system for use as a fuel. The facility has a Solid Waste Permit #562.

The DEQ, in conjunction with the Environmental Protection Agency (EPA) Region III, has deemed the treated landfill gas compression and transmission facility, currently being operated by Waverly Gas Producers, LLC. (Registration Number 52013), a support facility for the landfill. The basis for this determination is that Waverly Gas Producers, LLC is the only means by which Atlantic Waste Disposal, Inc. can deliver the treated landfill gas to the end user. This dependent relationship meets the support facility criteria established by the EPA.

As a support facility, Waverly Gas Producers, LLC and the Atlantic Waste Disposal, Inc. landfill are to be treated as a single facility, consequently Waverly Gas Producers, LLC shall be evaluated as a major source with respect to Title V and PSD applicability

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description (Start up date)	Size/Rated Capacity *	Pollution Control Device Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
CF-2	CF-2	Open (candle) Flare (2000)	1' x 32'/2500 SCFM	None	N/A	N/A	August 20, 2004
CF-3	CF-3	Open (candle) Flare (2000)	1' x 32'/2500 SCFM	None	N/A	N/A	August 20, 2004
CF-4	CF-4	Open (candle) Flare (TBD)	1'x 32'/3500 SCFM	None	N/A	N/A	August 20, 2004
CF-5	CF-5	Open (candle) Flare (TBD)	1'x 32'/3500 SCFM	None	N/A	N/A	August 20, 2004
CF-6	CF-6	Open (candle) Flare (TBD)	1'x 32'/3500 SCFM	None	N/A	N/A	August 20, 2004
Landfill Operations							
LC-1, LC-2, LC-3, LC-4, LC-5A, LC-5B, LC-6A, LC-6B, LC-7A, LC-7B, LC-7C, LC-8A, LC-8B, LC-9A, LC-9B, LC-10A, LC-10B, LC-10C, LC-11A, LC-11B, LC-11C, LC-12A, LC-12B and LC-12C	LFO-1	Landfill Operations, incl. a Gas Collection and Control System	87,553,045 m ³ (114,515,060 cu yds)	GCCS	CF-2, CF-3, CF-4, CF-5, CF-6	NMOC's, VOC, HAPs	August 20, 2004

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement. The rated capacity for the "Landfill Operations" is the volumetric capacity indicated in the August 20, 2004 PSD permit, converted to cubic meters.

III. Landfill Operations and Fuel Burning Equipment Requirements – (emission units CF-2, CF-3, CF-4, CF-5, CF-6 and LFO-1)

A. Limitations

As used in this section, all terms shall have the meaning as defined in 40 CFR 60.2, 40 CFR 60.18, 40 CFR Part 60 Subpart A, 40 CFR 60.751 (NSPS WWW) and 40 CFR 63.1990 (MACT AAAA). Copies of 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart WWW and 40 CFR Part 63 Subpart AAAA are attached.

1. **NSPS Subpart WWW** – The municipal solid waste landfill and the GCCS shall be constructed and operated in accordance with 40 CFR 60 Subpart WWW. The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed five days for collection systems and shall not exceed one hour for treatment or control devices. (9 VAC 5-50-410, 40 CFR 60.750 through 40 CFR 60.759, and Condition 12 of the NSR PSD permit dated 8/20/2004)
2. **NESHAP Subpart AAAA** – The municipal solid waste landfill and the GCCS shall be constructed and operated in accordance with 40 CFR 63 Subpart AAAA.
 - a. A “Startup, shutdown and malfunction” (SSM) Plan shall be developed and implemented for the facility. [40 CFR 63.6(e)(3) and 40 CFR 63.1960]
 - b. Semiannual reports required by 40 CFR 63, Subpart AAAA, with respect to the SSM plan should include the following events:
 - (1) Each SSM event and a description of how thoroughly the facility complied with each item contained in the SSM Plan.
 - (2) Any actions taken by the facility during an SSM event which are inconsistent with the SSM Plan must be recorded within two working days of the event and a letter must be submitted to the Administrator within seven days of the event. Any new actions that are indicated as appropriate during an SSM event shall be incorporated in a new SSM Plan.

(40 CFR 63.1930 through 63.1990 and Condition 15 of the NSR PSD permit dated 8/20/2004)
3. **Design Capacity** - The design capacity of the MSW landfill (LFO-1), which includes Cells 1, 2, 3, 4, 5A, 5B, 6A, 6B, 7A, 7B, 7C, 8A, 8B, 9A, 9B, 10A, 10B, 10C, 11A, 11B, 11C, 12A, 12B, and 12C, is 114,515,060 yd³ with an assumed maximum compaction of 1900 lbs/yd³. A change in the design capacity may require a permit to construct and operate. (9 VAC 5-50-390, 9 VAC 5-80-1880 and Condition 3 of the NSR PSD permit dated 8/20/2004)

4. **Dates of Construction** - Construction of cell 5A shall begin by August 1, 2006. If construction of the cell has not commenced within 18 months after the date shown above, the permit could become invalid (see Condition III.A.7). Construction commencing prior to the date listed shall apply BACT as described in Condition III.A.6. An amended permit application should be submitted to the Piedmont Regional Office to change or remove the dates from the permit (see Condition III.A.8).
(9 VAC 5-80-1210, 9 VAC 5-80-1880 and Condition 4 of the NSR PSD permit dated 8/20/2004)
5. **Emissions evaluation for Phased Construction** - Any application for construction, reconstruction, or modification of this facility submitted subsequent to the application dated February 5, 2003 received by DEQ shall include an analysis of the effect of the construction, reconstruction, or modification on the facility-wide emissions and a determination of the effect of the project on plant-wide production capacity. Further emissions increases related to this construction, reconstruction, or modification shall be evaluated together with the August 20, 2004 PSD emission increases to determine whether such activities are subject to any applicable provisions of 9 VAC 5 Chapter 80, Articles 6, 8 and 9 of the State Regulations.
(9 VAC 5-80-1100, 9 VAC 5-80-1700, 9 VAC 5-80-2000 and Condition 9 of the NSR PSD permit dated 8/20/2004)
6. **BACT evaluation for Phased Construction** - The emission controls required by this permit will be reevaluated in conjunction with future submittals related to the phased construction activities covered in this permit no later than 18 months prior to the commencement of construction for each phase of the project. Future emission reduction strategies determined to be applicable to future phased construction activities may require amending this permit.
(9 VAC 5-80-1800, 5-50-280 D and Condition 10 of the NSR PSD permit dated 8/20/2004)
7. **Permit Invalidation for Phased Construction** – The NSR PSD permit shall become invalid if the program of construction, reconstruction, or modification is discontinued for a period of 18 months or more. Each phase of an approved plan of construction in phased increments shall commence construction, reconstruction, or modification no more than 18 months after the projected and approved date for each phase of the construction as listed in Condition III.A.4.
(9 VAC 5-80-1210, 9 VAC 5-80-1880 and Condition 44 of the NSR PSD permit dated 8/20/2004)

8. **Amendments to Construction Start Date** - If modification of the landfill is not commenced eighteen months after the dates submitted with the application dated February 5, 2003 (with amendment information dated July 2, 2003) and as listed in Condition III.A.4, if it is discontinued for a period of eighteen months, or if the permittee does not intend to begin actual construction on any Cell within 18 months after the date submitted with the application (letter dated July 2, 2003), the permittee shall submit a permit amendment request, including a revised Form 7, to remove the project from the list of projects included in this phased construction permit or change the anticipated construction start date.
(9 VAC 5-80-1210 and Condition 45 of the NSR PSD permit dated 8/20/2004)
9. **The Gas Collection and Control System (GCCS)** - The permittee shall operate an active collection and control system approved by the Department that captures the gas generated within the landfill. The GCCS installed at the Atlantic Waste Disposal Landfill shall be certified under 40 CFR 60.759(a)(1). The active collection system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment [40 CFR 60.752(b)(ii)(A)(1)]. The system shall be designed and operated to collect gas from each cell in the landfill in which solid waste has been placed for a period of 5 years or more if active or 2 years or more if closed or at final grade [40 CFR 60.752(b)(ii)(A)(2) and 60.753(a)]. The system shall collect gas at a sufficient extraction rate to meet all operational requirements of this permit and 40 CFR 60 Subpart WWW [40 CFR 60.752(b)(ii)(A)(3)]. The system shall be designed to minimize the off-site migration of subsurface gas [40 CFR 60.752(b)(ii)(A)(4)]. The permittee shall submit an updated design plan for the GCCS whenever changes or additions are made to the system.
(9 VAC 5-50-410, 40 CFR 60.752 (b)(2)(ii)(A), 40 CFR 60.752(b)(2)(iv), 40 CFR 60.759(c) and 40 CFR 60.753(a) and Condition 5 of the NSR PSD permit dated 8/20/2004)
10. **Specifications for Active Collection System** – The permittee shall site and construct the active collection wells, horizontal collectors, surface collectors, and vertical wells in a manner consistent with the active gas collection and control system design plan most recently submitted and approved by the Piedmont Regional Office
(9 VAC 5-50-410, 40 CFR 60.759 and Condition 13 of the NSR PSD permit dated 8/20/2004)
11. **NMOC Controls** - The collection system shall be operated such that all collected gas is routed to the control system where it is combusted by non-assisted type open flares (CF-2 through CF-6) or to a treatment system that processes the collected gas for subsequent sale or use as described in 40 CFR 60.752(b)(2)(iii)(C). The open flares shall be designed and operated in accordance with 40 CFR 60.18 [40 CFR 60.752(b)(2)(iii)(A)]. Any emissions from any atmospheric vent from the gas treatment system shall be routed to the control system and combusted by the open flares. Open flares CF-2 through CF-6 shall meet the criteria in 40 CFR 60.18. The net heating value for the landfill gas being combusted shall be 200 Btu/scf or greater as determined by methods listed in 40 CFR 60.18(f)(3) or other methods approved by the Administrator. The exit velocity shall be less than 60 ft/second except when the net heating value for the landfill gas is greater than 1,000 Btu/scf **OR** the

- exit velocity is less than V_{MAX} and less than 400 ft/second. The exit velocity shall be determined using the applicable methods listed in 40 CFR 60.18(f)(4) and 40 CFR 60.18(f)(5) or methods approved by the administrator. A change in the control system may require a permit to modify and operate.
(9 VAC 5-50-410, 40 CFR 60.752 (b)(2)(iii), 40 CFR 60.752(b)(2)(iv), 40 CFR 60.753(e) and Conditions 5 and 6 of the NSR PSD permit dated 8/20/2004)
12. **GCCS Operation** – The permittee shall operate the collection system such that the surface methane concentration is less than 500 ppm above the background level at the surface of the landfill [40 CFR 60.753(d)]. A negative pressure shall be maintained at each active wellhead except as provided in 40 CFR 60.753(b). The permittee shall operate each interior, active wellhead in the collection system such that the gas temperature is less than 55 degrees C and with either a nitrogen level less than 20% or an oxygen level less than 5%. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens [40 CFR 60.753(c)].
(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(iv), 40 CFR 60.753(b), (c) & (d) and Condition 5 of the NSR PSD permit dated 8/20/2004)
13. **GCCS Shut down** - The permittee shall operate the GCCS such that in the event that the collection and control system is inoperable, the GCCS gas moving equipment shall be shut down and all vents to the atmosphere shall be closed within 1 hour.
(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(iv), 40 CFR 60.753(e) and Condition 16 of the NSR PSD permit dated 8/20/2004)
14. **Operational Integrity** – The permittee shall operate the control or treatment system at all times when the collected gas is routed to the system.
(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(iv) and 40 CFR 60.753(f), and Condition 16 of the NSR PSD permit dated 8/20/2004)
15. **Placement of New Wells** – The permittee shall place each well or design component as specified in the approved GCCS design plan and shall install wells no later than 60 days after the date on which the initial solid waste has been in place in any cell or group of cells for a period of 5 years or more if active or 2 years or more if closed or at final grade.
(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(iv) and 40 CFR 60.755(b))
16. **Approved Fuels** - The approved fuel for the open flares is landfill gas. Propane fuel shall be used as necessary to ignite the flare devices. No other fuel is authorized in conjunction with the operation of the GCCS. A change in fuel may require a permit to modify and operate.
(Condition 17 of the NSR PSD permit dated 8/20/2004)
17. **Throughput Limit** - The five flares (CF-2 through CF-6) shall consume no more than 8,146,800,000 cubic feet of landfill gas combined per year, calculated monthly as the sum of each consecutive 12-month period.
(Condition 18 of the NSR PSD permit dated 8/20/2004)

18. **Open Flare Requirements** - The two LFG&E Triton Candle Flare Models TCF-2500A (CF-2 and CF-3) shall each operate within the following parameters to ensure that the vendor guaranteed carbon monoxide emission factor of 0.15 lb/MMBTU is met:

- a. A landfill gas flow rate from 250 SCFM (minimum) to 2500 SCFM (maximum).
- b. A heat input of 81.99 MMBTU/hr which shall be demonstrated using the procedures listed in Condition III.C.4.i of this permit.
- c. A methane concentration in the landfill gas from 30% (minimum) to 60% (maximum).

(9 VAC 5-50-260, 9 VAC 5-80-1800 and Condition 7 of the NSR PSD permit dated 8/20/2004)

19. **Open Flare Requirements** - The three 3500 scfm Candle Flares (CF-4 through CF-6) shall each operate within the following parameters to ensure that the vendor-guaranteed carbon monoxide emission factor of 0.15 lb/MMBTU is met:

- a. A landfill gas flow rate from 350 SCFM (minimum) to 3500 SCFM (maximum) on a ten to one turndown ratio.
- b. A heat input of 114.8 MMBTU/hr, which shall be demonstrated using the procedures listed in Condition III.C.4.i.
- c. A methane concentration in the landfill gas from 30% (minimum) to 60%(maximum).

(9 VAC 5-50-260, 9 VAC 5-80-1800 and Condition 8 of the NSR PSD permit dated 8/20/2004)

20. **Emission Factors** - The following emission factors (or others approved by the Piedmont Regional Office) shall be used to calculate emissions from the LFG&E Triton Candle Flares Model TCF-2500A (CF-2 and CF-3) and the three 3500 scfm Candle Flares (CF-4, CF-5 and CF-6):

Particulate Matter/PM ₁₀	17.0 lbs/mmcf CH ₄
Sulfur Dioxide	8.9 lbs/mmcf LFG*
Nitrogen Oxides	40.0 lbs/mmcf CH ₄
Carbon Monoxide	0.15 lbs/mmBtu
Non-Methane Organic Compounds	6.5 lbs/mmcf LFG*
Volatile Organic Compounds	2.5 lbs/mmcf LFG*

*These emission factors are based on 60% methane in the LFG, which represents the maximum methane percentage the flare manufacturers will guarantee. Actual methane percentages may be less.

(9 VAC 5-50-260, 9 VAC 5-50-180 and Condition 20 of the NSR PSD permit dated 8/20/2004)

21. **Emissions Limits** – Hourly emissions from the operation of each LFG&E Triton Candle Flare (CF-2 and CF-3) shall not exceed the limits specified below:

Particulate Matter/PM ₁₀	1.6 lb/hr
Sulfur Dioxide	1.4 lb/hr
Nitrogen Oxides	3.6 lb/hr
Carbon Monoxide	12.3 lb/hr
Non-Methane Organic Compounds	1.0 lb/hr
Volatile Organic Compounds	0.4 lb/hr

Emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions II, III.A.16, III.A.18 and III.A.20.

(9 VAC 5-50-260 and Conditions 2, 7, 17 and 20 of the NSR PSD permit dated 8/20/2004)

22. **Emission Limits** - Emissions from the operation of each of the three 3500 scfm Candle Flares (CF-4, CF-5 and CF-6) shall not exceed the limits specified below

Particulate Matter/PM ₁₀	2.2 lbs/hr
Sulfur Dioxide	1.9 lbs/hr
Nitrogen Oxides	5.1 lbs/hr
Carbon Monoxide	17.3 lbs/hr
Non-Methane Organic Compounds	1.4 lbs/hr
Volatile Organic Compounds	0.6 lbs/hr

Emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the

exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions II, III.A.16, III.A.19, and III.A.20
(9 VAC 5-50-260 and Conditions 2, 8, 17 and 20 of the NSR PSD permit dated 8/20/2004)

23. **Open Flare Emissions** – Annual emissions from the operation of the five flares (CF-2 through CF-6)) shall not exceed the limits specified below:

Particulate Matter/PM ₁₀	41.6 tons/year
Sulfur Dioxide	36.3 tons/year
Nitrogen Oxides	97.8 tons/year
Carbon Monoxide	334.0 tons/year
Non-Methane Organic Compounds	26.5 tons/year
Volatile Organic Compounds	10.2 tons/year

Emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions II, III.A.16, III.A.17, III.A.18, III.A.19, and III.A.20.
(9 VAC 5-50-260 and Conditions 2, 7, 8, 17, 18, and 20 of the NSR PSD permit dated 8/20/2004)

24. **Visible Emission Limit** – The five flares (CF-2 through CF-6) shall each be operated with no visible emissions, as determined by EPA Method 22, except for periods not to exceed a total of five minutes during two consecutive hours. This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-50-260, 9 VAC 5-50-410, 40 CFR 60.18 and Condition 19 of the NSRPSD permit dated 8/20/2004)

25. **Operation/Maintenance** - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:
- Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - Maintain an inventory of spare parts.
 - Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-50-410, 40 CFR 60.11(d) and Condition 50 of the NSR PSD permit dated 8/20/2004)

B. Monitoring

1. **NSPS Requirements** - The landfill gas collection and control system shall be monitored and all appropriate data recorded as required in Subpart WWW (Subsection 60.756).
(9 VAC 5-50-410 and Condition 32 of the NSR PSD permit dated 8/20/2004)
2. **NESHAP Requirements** - The landfill gas collection and control system shall be monitored and all appropriate data recorded as required in Subpart AAAA (Subsection 63.1930).
(40 CFR 63.1960, 40 CFR 63.1980 and Condition 33 of the NSR PSD permit dated 8/20/2005)
3. **Well Pressure** - The permittee shall measure gauge pressure in the header at each individual active well monthly [40 CFR 60.755(a)(3) and 60.756(a)(1)]. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days. If a negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the system shall be expanded within 120 days of the initial measurement of positive pressure. If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in Condition III.A.12. Exceptions to the requirement for corrective action are listed under 40 CFR 60.753(b)(1)-(b)(3).
(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(iv), 40 CFR 60.753(g), 40 CFR 60.755(a)(3), 40 CFR 60.756(a)(1) and Condition 28 of the NSR PSD permit dated 8/20/2004)
4. **Well Parameters** - The permittee shall monitor each active well monthly for temperature and nitrogen or oxygen as provided in 40 CFR 60.753(c) [40 CFR 60.755(a)(5) and 60.756(a)(2)&(3)]. If a well exceeds one of the operating parameters stated in Condition III.A.12 of this permit, action shall be initiated to correct the exceedance within five calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedance of other operational or performance standards. If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in Condition III.A.12.
(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(iv), 40 CFR 60.753(g), 40 CFR 60.755(a)(5), 40 CFR 60.756(a)(2) and (3), and Condition 28 of the NSR PSD permit dated 8/20/2004)

5. **Surface Monitoring** - For each collection area for which waste has been in place for two or more years if closed or at final grade or for which waste has been in place for five or more years if active, the permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a site-specific traversing pattern detailed in their updated surface monitoring design plan, and where visual observations indicate elevated concentrations of landfill gas (such as distressed vegetation and cracks or seeps in the cover). This surface methane monitoring shall take place on a quarterly basis using an organic vapor analyzer, flame ionization detector or other portable monitor meeting the specifications provided in paragraph (d) of 40 CFR 60.755. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.
(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(iv), 40 CFR 60.753(d), 40 CFR 60.755(c)(1) and Condition 28 of the NSR PSD permit dated 8/20/2004)
6. **Surface Monitoring** – The background concentration of methane during surface emissions monitoring shall be determined for the instrument measuring the surface concentrations of methane by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. Surface emission monitoring shall be performed in accordance with 40 CFR 60 Appendix A, Method 21, Section 4.3.1, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.
(9 VAC 5-50-410 and 40 CFR 60.755(c)(2) and (c)(3))
7. **Surface Monitoring Method of Operation** – The portable analyzer used to determine the surface methane concentration shall meet the instrument specifications provided in 40 CFR 60, Appendix A, Method 21, Section 3, except that methane shall replace all references to VOC. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air. To meet the performance evaluation requirements in section 3.1.3 of Method 21, the instrument evaluation procedures of Section 4.4 of Method 21, of Appendix A shall be used. The calibration procedures in Section 4.2 of Method 21 shall be followed immediately before commencing a surface monitoring survey.
(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(iv) and 40 CFR 60.755(d))
8. **Exceedances** – Any reading of surface methane of 500 ppm or more above background at any location shall be recorded as a monitored exceedance and the actions specified below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements.
 - a. The location of the exceedance shall be marked and recorded.
 - b. The permittee shall perform cover maintenance or make adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of the exceedance. The location shall be remonitored within 10 calendar days of detecting the exceedance.
 - c. If the remonitoring of the location shows a second exceedance, the permittee shall take additional corrective action and shall monitor the location again within 10 days of the second exceedance. If the remonitoring shows a third exceedance for the location, the

permittee shall install a new well or other collection device within 120 calendar days after the initial exceedance.

- d. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm above background at the 10-day remonitoring shall be remonitored one month from the initial exceedance. If the one-month remonitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring. If the one-month remonitoring shows an exceedance, the permittee shall repeat the requirements of either paragraph (c) or (e) of this condition.
- e. For any location where the monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes, or control devices, and a corresponding timeline for installation may be submitted to the Director, Piedmont Regional Office and the Administrator for approval.

(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(iv), 40 CFR 60.753(g), 40 CFR 60.755(c)(4)(i) through 60.755(c)(4)(v), and Condition 30 of the NSR PSD permit dated 8/20/2004)

- 9. **Cover Integrity** - The permittee shall implement a program to monitor for cover integrity and accomplish cover repairs as necessary on a monthly basis.
(9 VAC 5-50-410 and 40 CFR 60.755(c)(5) and Condition 28 of the NSR PSD permit dated 8/20/2004)
- 10. **Sampling Ports** - The permittee shall install a sampling port and thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead.
(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(iv) and 40 CFR 60.756(a))
- 11. **Monitoring Devices** - The GCCS shall be equipped with a gas flow rate-measuring device that shall record the flow to the open flares (CF-2 through CF-6) at least every 15 minutes. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's specifications. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the GCCS is operating. Any periods of malfunction of these monitoring devices shall be recorded as defined in Condition III.C.7.
(9 VAC 5-50-410, 9 VAC 5-50-20 C, 40 CFR 60.756(c) and Conditions 7 and 8 of the NSR PSD permit dated 8/20/2004)
- 12. **Flare Monitoring** - The permittee shall use a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at each flare's pilot light or the flame itself to monitor and record the continuous presence of a flame when emissions are vented to the open flares. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's specifications. The methane concentration of the landfill gas feeding flares, CF-2 through CF-6, shall be

monitored at least once every week when landfill gas is vented to either or both flares during the weekly timeframe. The monitoring may occur at the common header feeding the flares. (40 CFR 60.18, 40 CFR 60.752(b)(2)(iv), 40 CFR 60.756(c) and Conditions 28.c. and 29.b. of the NSR PSD permit dated 8/20/2004)

C. Recordkeeping

1. **Well Inspections** - The permittee shall record and maintain a log of well inspections that indicated a positive pressure had existed, including instances when positive pressure occurred in efforts to avoid fire, and any corrective action taken to meet the negative pressure requirement of Condition III.A.12 of this permit.
(9 VAC 5-50-410, 40 CFR 60.753(b)(1) and Condition 34 of the NSR PSD permit dated 8/20/2004)
2. **Surface Monitoring Plan** – The permittee shall develop and maintain a surface monitoring design plan that includes a topographical map with the approved monitoring route indicated and the rationale for any approved site-specific deviations from the required intervals as allowed by 40 CFR 60.755(c)(1).
(9 VAC 5-50-410, 40 CFR 60.753(d) and Condition 34 of the NSR PSD permit dated 8/20/2004)
3. **Design Capacity** – The permittee shall keep for at least five years, current, readily accessible, on site records of the design capacity report, the current amount of waste in place, and the annual placement rates for solid waste. Either paper copy or electronic formats, approved by DEQ, are acceptable.
(9 VAC 5-50-410, 40 CFR 60.758(a) and Condition 34 of the NSR PSD permit dated 8/20/2004)
4. **Emission /Operating Data** - The permittee shall maintain records of emission and operational data as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Regional Office. All records required by this condition shall be available for inspection by the DEQ and shall be current for the most recent five years. These records shall include, but are not limited to:
 - a. All visual emissions observations and evaluations for the GCCS (i.e., flares) including the date and time of the observations, whether or not visible emissions were noted, the results of any Method 22 visible emissions determinations and any corrective action taken.
 - b. The flare pilot flame or flare flame continuous monitoring in each flare stack for open flares, CF-2 through CF-6 when landfill gas is being vented to any or all flares.
 - c. All periods of operations when landfill gas is being vented to each open flare, CF-2 through CF-6, during which the pilot flame or flare flame is absent for each open flare.

- d. The monthly monitored gauge pressure, temperature, and nitrogen or oxygen concentration for each well.
- e. The results from the monthly cover integrity monitoring and the date of cover repair.
- f. The monitored methane concentration at the landfill surface and the surface monitoring plan developed for the monitoring which includes a topographic map with the approved monitoring route indicated and the rationale for any approved site-specific deviations from the required intervals as allowed by 40 CFR 60.755(c)(1). Monitoring frequency shall be as described in 40 CFR 60.756(f).
- g. The weekly monitored methane concentration of the landfill gas feeding flares, CF-2 through CF-6, during the weekly timeframe when landfill gas is being vented to any or all flares. The monitoring may occur at the common header feeding the flares.
- h. The landfill gas flow, recorded at least once every 15 minutes for each open flare, CF-2 through CF-6 or recorded observations of the secured by-pass line valve.
- i. The heat input for each open flare, CF-2 through CF-6, calculated on a quarterly basis using the lower heating value of methane (911 BTU/SCF), the quarterly highest monitored methane concentration recorded for item g and the corresponding gas flow during this quarterly highest monitored methane concentration.
- j. All collection and control system exceedances of the operational standards, as provided in Condition III.A.12, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
- k. All decommissioned wells.
- l. Any inoperable periods exceeding one hour for the collection or control system.
- m. The combined yearly throughput of landfill gas to the open flares, CF-2 through CF-6, calculated monthly as the sum of each consecutive 12-month period.
- n. Emissions calculations for open flares, CF-2 through CF-6.
- o. Date of first waste placement for Cells 1, 2, 3, 4, 5A, 5B, 6A, 6B, 7A, 7B, 7C, 8A, 8B, 9A, 9B, 10A, 10B, 10C, 11A, 11B, 11C, 12A, 12B, and 12C.
- p. Calculations detailing the estimated annual site specific density and maximum design capacity.
- q. Malfunction reports for control or collection devices.
- r. A copy of the most recent approved gas collection and control system design plan.

(9 VAC 5-50-410, 40 CFR 60.758 and Condition 34 of NSR PSD permit dated 8/20/2004)

5. **Collection System** - The permittee shall keep for the life of the collection system:

- a. An up to date, readily accessible plot map showing each existing and planned collector in the system. This map shall also provide a unique identification location label for each collector.
- b. Readily accessible records of the installation date and location of all newly installed collectors.
- c. Documentation that the landfill has no area excluded from the landfill gas estimation or landfill gas collection and control system due to the location of nondegradable refuse including asbestos, demolition refuse, and coal ash.

(9 VAC 5-50-410 and 40 CFR 60.758(d) and Condition 34 of the NSR PSD permit dated 8/20/2004))

6. **Control System** – The permittee shall keep, for the life of the control equipment, up-to-date, readily accessible records of the following information, as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of five years. Records of the control device vendor specifications shall be maintained until removal.

- a. The maximum expected gas generation flow rate as calculated in 40 CFR 60.755(a)(1).
- b. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 60.759(a)(1).
- c. The type of open flare (i.e. steam-assisted, air-assisted, or nonassisted) used, all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18.
- d. Continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

(9 VAC 5-50-410 and 40 CFR 60.758(b) and Condition 34 of the NSR PSD permit dated 8/20/2005)

7. **Malfunction** – The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the landfill gas collection and control system, any malfunction of the air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative.

(9 VAC 5-50-410, 40 CFR 63.1980 and 40 CFR 60.7(b))

8. **Training** - The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available

good written operating procedures and a maintenance schedule for the combustion equipment. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept at the facility for a five-year period and made available for inspection by the DEQ.

(9 VAC 5-50-410 and Condition 50 of the NSR PSD permit dated 8/20/2004)

9. **New Source Review Permit** -A copy of the most recent NSR permit shall be maintained on the premises of the facility to which it applies.

(Condition 54 of the NSR PSD permit dated 8/20/2004)

D. Testing/Compliance Provisions

1. **Initial Performance Test** - Initial performance tests shall be conducted to determine the net heating value of the gas being combusted and the actual exit velocity for each open flare, CF-4 through CF-6. The tests for each open flare, CF-4 through CF-6, shall be performed, and demonstrate compliance, within 60 days after achieving maximum production rate at which each flare will be operated but no later than 180 days after initial start-up of each flare. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations. The test methods and procedures contained in 40 CFR 60.18(f)(3) and 40 CFR 60.18(f)(4) shall be used to determine the net heating value of the gas being combusted and the actual exit velocity for each open flare, CF-4 through CF-6. The details of the tests for each open flare are to be arranged with the Director, Piedmont Regional Office. The permittee shall submit a test protocol at least thirty days prior to testing for each open flare, CF-4 through CF-6. Two (2) copies of the test results for each open flare shall be submitted to the Director, Piedmont Regional Office within 45 days after test completion and 180 days after initial startup for each open flare. Each test report shall conform to the test report format enclosed with this permit and shall be submitted with the semi-annual compliance report specified in Condition III.E.1.

(9 VAC 5-50-410 and Condition 24 of the NSR PSD permit dated 8/20/2004))

2. **Visible Emissions Evaluation** - Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 22, shall also be conducted by the permittee on the open flares, CF-4 through CF-6. Each observation period shall be 2 hours. The details of the tests are to be arranged with Director, Piedmont Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed within 60 days after achieving the maximum production rate at which each flare will be operated but no later than 180 days after initial start up of each flare, CF-4 through CF-6. Should conditions prevent observations, the Director, Piedmont Regional Office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. Two copies of the test result shall be submitted to the Director, Piedmont Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-170-160, 9 VAC 5-80-1770, 9 VAC 5-50-410 and Condition 26 of the NSR PSD permit dated 8/20/2004)

3. **Visible Emission Evaluation** - The permittee shall perform a weekly visual evaluation of the open flares, Monday through Friday, when operating, except when closed for holidays, for compliance with the opacity limit expressed in Condition III.A.24. If such periodic evaluations indicate any visible emissions, the permittee shall take appropriate action, immediately, to return the unit to normal operation such that no visible emissions exist. If such corrective action fails to eliminate visible emissions, the permittee shall conduct a visible emissions evaluation (VEE) utilizing EPA Method 22 (reference 40 CFR, Appendix A). If a Method 22 evaluation and/or corrective action becomes necessary, the permittee shall record the details of the incident in a logbook. The logbook shall be kept on site and available for inspection by the DEQ for the most recent five year period.

If visible emission inspections conducted during twelve consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack

(9 VAC 5-50-20, 9 VAC 5-80-1770, 9 VAC 5-50-410 and Condition 27 of the NSR PSD permit dated 8/20/2004)

4. **Gas Collection System** - The specified methods in paragraphs (a)(1) through (a)(6) of 40 CFR 60.755(a) shall be used to determine whether the gas collection system is in compliance with 40 CFR 60.752(b)(2)(ii) and operated as specified in 40 CFR 60.572(b)(2)(iv).
(9 VAC 5-50-410, 40 CFR 60.655(a) and Condition 12 of the NSR PSD permit dated 8/20/2004)
5. **Determination of NMOC Concentration and LFG Flow Rate** - After the installation of a gas collection and control system in compliance with 40 CFR 60.755, the permittee shall determine the actual NMOC concentration and LFG flow rate and shall calculate the NMOC emission rate for the purposes of determining when the gas collection system can be removed in accordance with 40 CFR 60.754 (b).
(9 VAC 5-50-410, 40 CFR 60.754(b) and Condition 25 of the NSR PSD permit dated 8/20/2004)
6. **Nitrogen Testing** – Unless oxygen is tested, the nitrogen level at each wellhead shall be determined by using Method 3C.
(9 VAC 5-50-410, 40 CFR 60.753(c)(1) and Condition 5 of the NSR PSD permit dated 8/20/2004)
7. **Oxygen Testing** – Unless nitrogen is tested, the oxygen level at each wellhead shall be determined by an oxygen meter using Method 3A, except for the following:
 - a. The span shall be set so that the regulatory limit is between 20 and 50 percent of the span.
 - b. A data recorder is not required.

- c. Only a zero and a span calibration gas are required. Ambient air may be used as span.
- d. A calibration error check is not required.
- e. The allowable sample bias, zero drift, and calibration drift are +/- 10%.

(9 VAC 5-50-410, 40 CFR 60.753(c)(2) and Condition 5 of the NSR PSD permit dated 8/20/2004)

E. Reporting

1. **Semi-Annual Compliance Report** - A semi-annual compliance report shall be submitted to the Director, Piedmont Regional Office by the date specified below and shall contain the following:
 - a. The initial performance test report for each open flare, CF-4 through CF-6, shall contain the following information:
 - (1) The type of flare.
 - (2) All visible emission readings.
 - (3) Heat content determination.
 - (4) Gas flow rate or bypass measurements.
 - (5) Exit velocity determinations.
 - b. Instances when positive pressure at a wellhead occurred due to efforts to avoid a fire. If no such instances occur, the report shall so state.
 - c. Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756 (a), (b), (c), and (d);
 - d. Description and duration of all periods when each open flare, CF-2 through CF-6, was not working for a period exceeding 1 hour and length of time each open flare was not operating when landfill gas was being routed to any or all flares;
 - e. Description and duration of all periods when landfill gas is diverted from each open flare, CF-2 through CF-6, through a bypass line or the indication of bypass flow as specified under 40 CFR 60.756;
 - f. All periods when the collection system was not operating in excess of 5 days;
 - g. The location of each exceedance of the 500 ppm surface methane concentration, and the concentration recorded at each location for which an exceedance was recorded as provided in 40 CFR 60.755 (c); and as provided in Condition III.B.8 of this permit

- h. The date of installation and the location of each well or collection system expansion.

Items (b) through (g) shall be submitted every six months. Semi-annual reports shall cover the calendar year (from January through June and July through December) and shall be submitted prior to September 30 (for January through June) and March 31 (for July through December). The initial performance tests for open flares, CF-4 through CF-6, should be submitted with the annual compliance report covering the time period when the initial performance tests were conducted. One copy of the semi-annual compliance report shall be submitted to the U.S. Environmental Protection Agency at the address specified below:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-50-410 and Condition 35 of the NSR PSD permit dated 8/20/2004)

2. **Initial Notification** - The permittee shall furnish written notification to the Director, Piedmont Regional Office of:
- The actual date on which construction for Cells 5A, 5B, 6B, 7A, 7B, 7C, 8A, 8B, 9A, 9B, 10A, 10B, 10C, 11A, 11B, 11C, 12A, 12B, and 12C, individually, and the open flares CF-4, CF-5, and CF-6 at Atlantic Waste Disposal Landfill commenced within 30 days after such date.
 - The anticipated first waste placement date for Cells 5A, 5B, 6B, 7A, 7B, 7C, 8A, 8B, 9A, 9B, 10A, 10B, 10C, 11A, 11B, 11C, 12A, 12B, and 12C, individually, and the anticipated start-up date for open flares CF-4, CF-5, and CF-6, postmarked not more than 60 days nor less than 30 days prior to such date.
 - The actual first waste placement date for Cells 5A, 5B, 6B, 7A, 7B, 7C, 8A, 8B, 9A, 9B, 10A, 10B, 10C, 11A, 11B, 11C, 12A, 12B, and 12C, individually, and the actual start-up date for open flares CF-4, CF-5, and CF-6, within 15 days after such date.
 - The anticipated date of performance tests required by Conditions III.D.1 and III.D.2 for each open flare, CF-4, CF-5 and CF-6, at least 30 days prior to such date.
 - Any changes to the most recently approved gas collection and control system design plan at least 90 days prior to the date of the proposed change. Examples of relevant changes include, but are not limited to installing control devices other than open flares CF-4, CF-5 and CF-6; changes in the treatment system that processes the collected gas for subsequent sale or use; or installation of blowers other than those attached to open flares CF-4, CF-5 and CF-6.

Copies of the written notifications referenced in items a through d above are to be sent to the US Environmental Protection Agency at the address stated in Condition III.E.1 above.

(9 VAC 5-50-410, 9 VAC 5-50-50, 40 CFR 60.7(a) and Condition 40 of the NSR PSD permit dated 8/20/2004)

3. **Annual Emission Report for Fee Calculation** - The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the department.
(9 VAC 5-80-340C and Condition 38 of the NSR PSD permit dated 8/20/2005)
4. **Requirements for Landfill Closure** - The permittee shall submit the closure report to DEQ and the Administrator within 30 days of waste acceptance cessation. DEQ may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 9 VAC 20-80-250 E & F and 40 CFR 258.60. If a closure report has been submitted to the DEQ, no additional wastes may be placed into the landfill without filing a notification of modification.
(9 VAC 5-50-410 and 40 CFR 60.757(d) and Condition 36 of the NSR PSD permit dated 8/20/2004)

IV. Facility Wide Conditions (Landfill Surface and Roads)

A. Limitations

1. **Fugitive Dust Emissions** - Unless otherwise specified, dust emission controls shall include the following or equivalent as a minimum:
 - a. Dust from grading, cell construction, waste compaction, application of daily cover, wood waste chipping operations, storage piles and traffic areas shall be controlled by wet suppression or equivalent (as approved by DEQ) control measures.
 - b. All material being stockpiled shall be kept moist to control dust during storage and handling or covered to minimize emissions
 - c. Dust from haul roads shall be controlled by wet suppression and prompt removal of dried sediment resulting from soil erosion and dirt spilled or tracked onto paved surfaces within the landfill.
 - d. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Dirt spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.

(9 VAC 5-50-90, 9 VAC 80-110 and Condition 11 of the NSR PSD permit dated 8/20/2004)

2. **Notification for Control Equipment Maintenance** - In case of shutdown or bypassing, or both, of air pollution control equipment for necessary scheduled maintenance which results in excess emissions for more than one hour, the intent to shut down such equipment shall be reported to the board and local air pollution control agency, if any, at least 24 hours prior to the planned shutdown. Such prior notice shall include, but is not limited to, the following:
- Identification of the specific facility to be taken out of service as well as its location and permit or registration number;
 - The expected length of time that the air pollution control equipment will be out of service;
 - The nature and quantity of emissions of air pollutants likely to occur during the shutdown period; and,
 - Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage of the air pollution control equipment.

(9 VAC 5-50-380, 9 VAC 5-20-180 and Condition 41 of the NSR PSD permit dated 8/20/2004)

B. Monitoring

None

C. Recordkeeping

None

D. Testing/Compliance

None

E. Reporting

None

V. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation (9 VAC_)	Pollutant(s) Emitted (5-80-720 B)	Rated Capacity (5-80-720 C)
T1	Leachate Storage Tank	5-80-720B	VOC	110,000 gallons
T2	Leachate Storage Tank	5-80-720B	VOC	500,000 gallons

T3	Leachate Storage Tank	5-80-720B	VOC	500,000 gallons
T4	Leachate Storage Tank	5-80-720B	VOC	500,000 gallons
T-5	Split Tank ^a	5-80-720B	VOC	
T-6	Used Oil Tank	5-80-720B	VOC	275 gallons
T-7	Used Oil Tank	5-80-720B	VOC	275 gallons
T-8	Lube Oil Tank	5-80-720B	VOC	
T-9	Diesel oil tank	5-80-720B	VOC	12,000
EME	Misc. earth-moving eqpt.	5-80-720A.23	CO, PM10, NOx, SO2, VOC	Varies
EGEN-1	Diesel Emergency Generator	5-80-720C	CO, PM10, NOx, SO2, VOC	223.4 hp
PGEN-1	Portable Emergency Generator	5-80-720C	CO, PM10, NOx, SO2, VOC	0.75 hp
LP	Light plants (w/ IC engine)	5-80-720C	CO, PM10, NOx, SO2, VOC	0.08 MMBtu/hr

^aSplit Tank consist of 6,000 gal. off-road diesel, 2,000 gal. on-road diesel and 2,000 gal. gasoline.

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

VI. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
9 VAC 5-40-5800 and 40 CFR 60 subpart Cc	Emission Standards and Emission Guidelines for Sanitary Landfills	These regulations only apply to municipal solid waste landfills which commenced construction, reconstruction or modification before May 30 1991.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law. (9 VAC 5-80-140)

VII. Future Applicable Requirements

None

VIII. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete renewal application to the Department consistent with 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal, but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied, and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant to section 9 VAC 5-80-80 D, the applicant fails to submit, by the deadline specified in writing by the Board, any additional information identified as being needed to process the application.
(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements.
- b. The date(s) analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses.
- f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time periods to be included in the report (January 1 to June 30 and July 1 to December 31).
- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

(1) Exceedance of emissions limitations or operational restrictions;

(2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

(3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year, a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Piedmont Regional Office, within 4 daytime business hours, after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition VIII.C.3 of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as it is practicable, but no later than four daytime business hours after the malfunction is discovered, notify the Director, Piedmont Regional Office by facsimile transmission, telephone, or telegraph of the discovery of such failure or malfunction, and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner or operator shall notify the Director, Piedmont Regional Office.
(9 VAC 5-20-180 C)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-

1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)
2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 and 40 CFR 60.11)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee or co-operator shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
 - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of the malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit.
 - d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2. b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirements under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-190 C and 9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A-F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.

(40 CFR Part 68)

Z. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

IX. State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

1. 9 VAC 5 Chapter 50, Part II, Article 2: Standards of Performance for Odorous Emissions
2. 9 VAC Chapter 50, Part II, Article 3: Standards of Performance for Toxic Pollutants

(9 VAC 5-80-110 N and 9 VAC 5-80-300)